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10/585,862	07/11/2006	Luigi Moccia	TPP 32009	7750
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EXAMINER KOLLAS, ALEXANDER C				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/585,862

**Applicant(s)**

MOCCHIA, LUIGI

**Examiner**

ALEXANDER C. KOLLIAS

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-US)
- Paper No(s)/Mail Date 20060711
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Objections***

1. Claim 17 is objected to because of the following informalities: Claim 17 recites “coravirus” which appears to be a typographical error of “coronavirus”. Furthermore, claim 17 recited “a molded lacquered or painted product” which appears to be a typographical error of “molded, lacquered or painted product” Appropriate correction is required.
2. Claim 23 is objected to because of the following informalities: Claim 23 recites “wood floor” which appears to be a typographical error of “wood flour” Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 17-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 17 and 32 recite “even against SARS coronavirus” which renders to scope of the claim indefinite as it is unclear if the method and molded article are required to possess anti-microbial activity against the SARS coronavirus.

6. Claim 17 recited "an effective amount of inorganic derivative containing silver" renders the scope of the claim indefinite as it is not clear what amount is considered by Applicant to be an effective amount.
7. Claim 24 recites "usually as a lacquer or paint comprising which renders the scope of the claims indefinite, as it is unclear if the liquid thermosetting resin necessarily must be a lacquer or paint.
8. Claim 28 recites "so-called masterbatch" which renders the scope of the indefinite as it is not clear if Applicant's intention is to claim a masterbatch or not.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 17-18, 26, and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Laurin et al (US 4,603,152).

Regarding claims 17-18, 26, and 31-32, Laurin discloses a method for coating the surface of catheters and catheter adapters with compositions comprising thermosetting resins such as

acrylonitrile-butadiene-styrene (ABS) and polyvinyl chloride polymers and antimicrobial compounds such as silver oxide (Col. 5 Examples 1-3). Based on the amounts of silver oxide utilized in Examples 1-3, it is the Examiner's position that the amount of silver oxide in the coating meets the limitations drawn to an effective amount of an inorganic silver derivative as presently recited in claim 17. Although the reference does not explicitly disclose that the catheter and catheter adapter surface will have antiviral activity against SARS coronavirus, it is the Examiner's position that given that the reference discloses a method and compositions comprising polymers and antibacterial silver compounds as presently claimed, the articles disclosed by the reference will inherently have antiviral activity against SARS.

In light of the above, it is clear that Laurin anticipates the presently recited claims.

11. Claims 17-20, 22-23, 25, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Gueret et al (US 5,393,809) as evidenced by *United States Department of Labor, Occupational Safety & Health Administration (OSHA)* (see attached pages).

Regarding claims 17-20, 22-23, 25, and 32, Gueret et al discloses compositions and methods of forming compositions comprising urea-formaldehyde resin, particulate organic filler such as wood powder and antiseptic agents such as silver sulfate and silver nitrate which are used to form molded articles (Column 3, Lines 20-25 and Column 4, Lines 15-34, claims 1-4). Given that the reference discloses that the article comprising the above composition exhibit controlled release characteristics, it is clear that the surface of the molded articles will have antiviral activity. The reference discloses that the urea-formaldehyde resin comprising a filler (cellulose) is in powder form and immersed in a solution containing a silver antiseptic agent

before utilized for molding (Column 3, Lines 54-68 and Column 4, Lines 1-13). Additionally, the reference discloses that resin comprises 30 to 98 wt % while organic filler such as wood powder comprises 2 to 70 wt % of the composition. The filler is impregnated with 0.01 to 50 wt % of antiseptics such as silver nitrate (Column 2, Lines 22-25, Lines 39-56). Given the amount of antiseptic disclosed by the reference, it is the Examiner's position that the amount disclosed meets the limitation drawn to an effective amount of silver compound presently recited in claim 17.

Although the reference does not disclose that the urea-formaldehyde resin releases formaldehyde, it is the Examiner's position that the resin disclosed by the reference will inherently release formaldehyde. Evidence to support this position is found on Page 1 of *United States Department of Labor Occupational Safety & Health Administration* reference which discloses that urea-formaldehyde resin comprise unreacted formaldehyde residues which may be released from products.

The reference does not explicitly disclose that the surface of the molded objects will have antivirus activity against SARS coronavirus, it is the Examiner's position that given that the reference discloses a method and compositions comprising polymers and antimicrobial/antiviral silver compounds as presently claimed, the articles disclosed by the reference will inherently have antivirus activity against SARS as presently claimed.

In light of the above, it is clear that Gucret anticipates the presently recited claims.

12. Claims 17-18, 20-21, 27, and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Asai et al (US 5,137,957).

Regarding claims 17-18, 20-21, 27, and 31-32, Asai discloses a method of preparing an antibacterial polymer comprising a mixture of silver oxide and a thermoplastic copolymer utilized for form articles such as sheets, i.e., films or containers i.e., bottles (Column 12, Lines 5-12, Column 2, Lines 35-48, and Column 4, Lines 51-66). Although the reference does not disclose explicitly discloses that the molded articles will have a surface having antivirus activity, it is clear that the antibacterial additives, silver oxides, dispersed throughout the resin will provide antivirus activity to the surface of the disclosed articles. Further it is noted that the disclosed antibacterial articles, i.e., film and bottles meet the limitations recited in claims 27 and 32. Furthermore, the reference discloses that the antibacterial compositions is in the form of a powder can be utilized for coating the inner surfaces of cans, caps, and cans lids meeting the limitations drawn to a powder and powder coating recited in claims 20 and 21 (Column 5, Lines 20-31). Additionally, the reference discloses that silver oxide comprises 0.001 to 5 wt % of the composition from the standpoint of cost, antibacterial property, and dispersibility (Column 4, Lines 14-20). Given the amount of the antimicrobial compound disclosed by the reference, it is the Examiner's position that this amount meets the limitations drawn to an effective amount of silver compounds as presently recited in claim 17.

Although the reference does not explicitly disclose that the surface of the molded objects will have antivirus activity against SARS coronavirus, it is the Examiner's position that given that the reference discloses a method and compositions comprising polymers and antimicrobial/antiviral silver compounds as presently claimed, the articles disclosed by the reference will inherently have antivirus activity against SARS as presently claimed.

In light of the above, it is clear that Asai anticipates the presently recited claims.

13. Claims 17-18, 25, and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohsumi et al (US 5,698,229).

Regarding claims 17-18, 25, and 31-32, Ohsumi discloses antimicrobial compositions comprising thermoplastic resins and antimicrobial compounds such as those given by Formula 1, i.e., silver sodium hydrogen zirconium phosphate (Column 2, Lines 27-41 and Lines 51-56, Column 4 Lines 18-50). The reference discloses that the composition is applied to molded articles such as plastic food containers, refrigerators, and chopping boards (Column 6, Lines 58-67 and Column 7, Lines 1-14). Additionally, the reference discloses that the anti-microbial compounds comprises 0.01 to 0.5 parts by weight per 100 parts by weight of the composition thus meeting the limitation drawn to an effective amount of silver compound as presently recited in claim 17 (Column 5, Lines 15-28),

Although the reference does not explicitly disclose that the surface of the molded objects surface will have antiviral activity against SARS coronavirus, it is the Examiner's position that given that the reference discloses a method and compositions comprising polymers and antimicrobial/antiviral silver compounds as presently claimed, the articles disclosed by the reference will inherently have antiviral activity against SARS as presently claimed.

In light of the above, it is clear that Ohsumi anticipates the presently recited claims.



14. Claims 17-18 and 31-32 are rejected under 35 U.S.C. 102(a) as being anticipated by *Plastics Additives & Compounding* (see attached pages) as evidenced by *Perstorp Product Literature* (see attached pages).

Regarding claims 17-18 and 31-32, *Plastics Additives & Compounding* discloses a composition comprising the compound known under the tradename POLYGIENE which provides antiviral effectiveness against SARS corona virus (Page 55-56). POLYGIENE comprises silver-based antimicrobial additives that can kill a wide range of bacteria, yeasts and molds. The reference discloses films and molded sanitary objects such as toilet seats comprising POLYGIENE and silver, meeting the limitations drawn to a molded article with a surface having antivirus activity (Pages 56). The compound POLYGIENE is disclosed as comprising resins known under the tradenames AMINEL and AMITEC which as evidenced by *Perstorp Product Literature* are amino thermoset resins (see Page 1 of reference). Given that the reference discloses that POLYFIENE is effective against SARS and comprises silver compounds, it is clear that the amount of silver in the compound meets the limitations drawn to an effective amount of silver as presently recited in claim 17.

In light of the above, it is clear that Ohsumi anticipates the presently recited claims.

15. Claims 17-20, 22-23, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Moccia et al (WO 2001/79349) as evidenced by *United States Department of Labor, Occupational Safety & Health Administration (OSHA)* (see attached pages).

Regarding claims 17-20, 22-23, and 32, Moccia discloses molding compositions comprising urea-formaldehyde resins compounded with silver antiseptic agents such as silver

sodium hydrogen zirconium phosphate compounds (Page 1, Lines 31-32, Page 2, Lines 1-7 and Lines 30-34, Page 3, Lines 26-29). The composition in powder form comprises urea-formaldehyde resin, silver compounds, and cellulose (Page 10, Lines 15-30 and Page 8, Lines 14-18). Additionally, the reference discloses that the molding composition comprises 0.0001 to 5 wt % of the composition, meeting the limitation drawn to an effective amount of silver compound presently recited in claim 17 (Page 3, Lines 30-34).

The reference does not disclose that the urea-formaldehyde resin releases formaldehyde, it is the Examiner's position that the resin disclosed by the reference will inherently release formaldehyde. Evidence to support this position is found on Page 1 of *United States Department of Labor Occupational Safety & Health Administration* reference which discloses that urea-formaldehyde resin comprise unreacted formaldehyde residues which may be released from products comprising said resin.

The reference does not explicitly disclose that surface of molded articles will have antiviral activity against SARS coronavirus, it is the Examiner's position that given that the reference discloses a method and compositions comprising polymers and antimicrobial/antiviral silver compounds as presently claimed, the articles disclosed by the reference will inherently have antiviral activity against SARS as presently claimed.

In light of the above, it is clear that Ohsumi anticipates the presently recited claims.

#### ***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1796

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. Claims 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurin et al (US 4,603,152).

The discussion with respect to Laurin as set forth in Paragraph 10 above is incorporated here by reference

Regarding claims 25 and 29, Laurin teaches all the claim limitations as set forth above. Additionally, the reference discloses that to the mixture of resins such as polymethyl methacrylate physiological antimicrobial metal compounds are added such as silver chloride, silver nitrate, silver sulfate (Column 2, Lines 59-68 and Column 3, Lines 1-5).

While the reference fails to exemplify the presently claimed composition and method nor can the claimed composition and method be "clearly envisaged" from the reference as required to meet the standard of anticipation (cf. MPEP 2 13 1-03), nevertheless, in light of the overlap between the claimed method and composition and the method and composition disclosed by the reference, absent a showing of criticality for the presently claimed method and composition, it is urged that it would have been within the bounds of routine experimentation, as well as the skill

level of one of ordinary skill in the art, to use the method and composition which are both disclosed by the reference and encompassed within the scope of the present claims and thereby arrive at the claimed invention.

19. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gueret et al (US 5,393,809) as evidenced by *United States Department of Labor, Occupational Safety & Health Administration (OSHA)* (see attached pages).

The discussion with respect to Gueret as set forth in Paragraph 11 above is incorporated here by reference.

Regarding claim 30, Gueret et al teaches all the claim limitations as set forth above. Additionally, the reference discloses that resin comprises 30 to 98 wt % and organic filler such as wood powder comprises 2 to 70 wt % of the composition. The filler is impregnated with 0.01 to 50 wt % of antiseptics such as silver nitrate (Column 2, Lines 22-25, Lines 39-56). Based on the amount of filler in the composition and the amount of antiseptic impregnated into the filler, it is determined that compounds such as silver nitrate comprise 0.0002 to 35 wt % of the whole composition.

Regarding the amount of antiseptic disclosed by the reference, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir. 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919

F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

20. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asai et al (US 5,137,957).

The discussion with respect to Asai as set forth in Paragraph 12 above is incorporated here by reference.

Regarding claim 30, Asai teaches all the claim limitations as set forth above. Additionally, the reference discloses that silver oxide comprises 0.001 to 5 wt % of the composition from the standpoint of cost, antibacterial property, and dispersibility (Column 4, Lines 14-20).

Regarding the amount of silver oxide disclosed by the reference, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See In re Harris, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); In re Peterson, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); In re Woodruff, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

21. Claims 26 and 29- 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsumi et al (US 5,698, 229).

The discussion with respect to Ohsumi et al as set forth in Paragraph 13 above is incorporated here by reference.

Regarding claims 26 and 29, Ohsumi et al discloses resins such as polyethylene, polypropylene, polystyrene, polyvinyl chloride, and polyacrylate (Column 3, Lines 15-35). Further the resins maybe in solid or liquid form (Column 2, Lines 52-56).

While the reference fails to exemplify the presently claimed composition and method nor can the claimed composition and method be "clearly envisaged" from the reference as required to meet the standard of anticipation (cf. MPEP 2 13 1-03), nevertheless, in light of the overlap between the claimed method and composition and the method and composition disclosed by the reference, absent a showing of criticality for the presently claimed method and composition, it is urged that it would have been within the bounds of routine experimentation, as well as the skill level of one of ordinary skill in the art, to use the method and composition which are both disclosed by the reference and encompassed within the scope of the present claims and thereby arrive at the claimed invention.

22. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsumi et al (US 5,698, 229) in view of Alger (see attached pages of *Polymer Science Dictionary*).

The discussion with respect to Ohsumi et al as set forth in Paragraph 13 above is incorporated here by reference.

Regarding claim 24, Ohsumi discloses all the claim limitations as set forth above. Additionally, the reference discloses that the composition comprises resins such as urea, melamine resins or phenolic resins either in solid or liquid forms (Column 2 Lines 52-56 and

Column 3, Lines 15-30). However, the reference does not disclose that the composition comprises a urea-formaldehyde or melamine-formaldehyde resin.

Alger discloses that melamine-formaldehyde resins have good heat and chemical resistance while urea-formaldehyde resins are colorless and economical compared to phenolic resins (Page 305 and Page 596).

Given that Ohsumi discloses an antimicrobial composition comprising antimicrobial compounds and resins in liquid forms, and in light of the particular advantages of urea-formaldehyde and melamine-formaldehyde resins as taught by Alger it would have been obvious to one of ordinary skill in the art to include the resin taught by Alger in the compositions of Ohsumi et al with a reasonable expectation of success.

23. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsumi et al (US 5,698, 229) as applied to claims 26, 29, and 30 above, and further in view of Lewis (see attached pages of *Hawley's Condensed Chemical Dictionary*).

Regarding claim 28, Ohsumi discloses all the claim limitations as set forth above. As discussed above, the reference discloses that the composition is in the form of a powder. Additionally, the reference discloses that the anti-microbial compounds comprise 0.01 to 0.5 parts by weight per 100 parts by weight of the composition (Column 5, Lines 15-28). However, the reference does not disclose a method where the plastic compositions is present as a masterbatch

Lewis discloses a masterbatch as a previously prepared mixture composed of a base material and a high percentage of ingredients in powder form critical to the product being

manufactured. The masterbatch is added to production size quantity during the mixing operation, thereby permitting uniform dispersion of small amounts of additives (Page 703).

Given that Ohsumi discloses a method of preparing the antimicrobial compositions by mixing, incorporating or kneading, and in light of the particular advantages of the masterbatch process as taught by Lewis, it would have been obvious to one of ordinary skill in the art to modify the method of mixing as taught by Ohsumi to include the masterbatch process as taught by Lewis in order to obtain a production-size quantities which has uniform dispersion of antimicrobial compounds.

Regarding claim 30, Ohsumi et al discloses all the claim limitations as set forth above. Additionally, the reference discloses that the anti-microbial compounds comprises 0.01 to 0.5 parts by weight per 100 parts by weight of the composition (Column 5, Lines 15-28)

Regarding the amount of antiseptic disclosed by the reference, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

24. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Mocchia et al* (WO 2001/79349) ) as evidenced by *United States Department of Labor, Occupational Safety &*



*Health Administration (OSHA)* (see attached pages) in view of Lewis (see attached pages of *Hawley's Condensed Chemical Dictionary*).

The discussion with respect to Mocchia et al as set forth in Paragraph 15 above is incorporated here by reference.

Regarding claim 28, Mocchia et al teaches all the claim limitations as set forth above. Additionally, the reference discloses that the molding composition comprises 0.0001 to 5 wt % of the compositions (Page 3, Lines 30-34). However, the reference does not disclose that the plastic composition is present in a masterbatch

Lewis discloses a masterbatch as a previously prepared mixture composed of a base material and a high percentage of ingredients in powder from critical to the product being manufactured. The masterbatch is added to production size quantity during the mixing operation, thereby permitting uniform dispersion of small amounts of additives (Page 703).

Given that Mocchia discloses a method of preparing the antimicrobial compositions by mixing polymers, fillers, and antibacterial compounds in powder form, and in light of the particular advantages of the masterbatch process as taught by Lewis, it would have been obvious to one of ordinary skill in the art to modify the method of mixing as taught by Mocchia et al to include the masterbatch process as taught by Lewis in order to obtain a production-size quantities which has uniform dispersion of antimicrobial compounds.

25. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mocchia et al (WO 2001/79349) as evidenced by *United States Department of Labor, Occupational Safety & Health Administration (OSHA)* (see attached pages).

The discussion with respect to Mocchi et al as set forth in Paragraph 15 above is incorporated here by reference.

Regarding claim 30, Mocchi teaches all the claim limitations as set forth above. Additionally, the reference discloses that the molding composition comprises 0.0001 to 5 wt % of the compositions (Page 3, Lines 30-34).

Regarding the amount of antiseptic disclosed by the reference, it is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

### ***Conclusion***

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER C. KOLLIAS whose telephone number is (571)-270-3869. The examiner can normally be reached on Monday-Friday, 8:00 AM -5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C. K./  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796